

REMARKS

Examiner J. Maldonado is thanked for the thorough examination and search of the subject Patent Application.

All Claims are believed to be in condition for Allowance, and that is so requested.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 1-3 and 6 as being unpatentable over Rhodes et al, Ye et al, Huang et al, and Liu et al is requested in accordance with the following remarks.

Applicant agrees that the cited art teach methods to form interconnects. However, Applicant does not believe that the cited art, individually or in combination, teach, suggest or hint at the method of Applicant's claimed invention. In particular, Applicant teaches forming self-aligned, anti-via interconnects using a method wherein a tantalum-containing etch stop layer 62 is used as an etching stop between the first metal layer 58 and the second method layer 66. More particularly, this tantalum-containing etch stop layer 62 specifically prevents etching of the first metal layer 58 during the etching of the second overlying metal layer 66 to form vias.

It is agreed that Ye et al use a tantalum-containing layer 218 as an etch stop over a metal layer 216. However, Ye et al does not teach or suggest employing a tantalum-containing layer as an etch stop for a metal etching process. The tantalum-containing layer stops etching of a silicon

dioxide material 222 from etching into the underlying metal layer 216. It is not agreed that an etch stop used in a silicon dioxide etching method can be used interchangeably with an etch stop used in a metal etching method to prevent etching of an upper metal layer from etching into the underlying lower metal layer. Applicant cannot agree with the Examiner's position that one skilled in the art would have thought to combine Ye et al with Rhodes et al since Ye et al does not teach preventing etching of a first metal layer during the etching of a second overlying metal layer.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 1-3 and 6 as being unpatentable over Rhodes et al, Ye et al, Huang et al, and Liu et al is requested in view of Amended Claims 14, 16, 19, and 21 and in accordance with the remarks above.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 9-12, 15, and 18-21 as being unpatentable over Rhodes et al, Ye et al, Huang et al, Liu et al, and Pangrle et al is requested in view of Amended Claims 14, 16, 19, and 21 and in accordance with the following remarks.

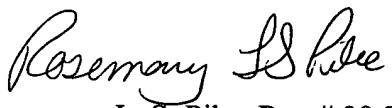
As discussed above, the references, individually or in combination, do not teach or suggest a tantalum-containing etch stop layer to prevent etching of a first metal layer during the etching of a second overlying metal layer.

Reconsideration of the rejection under 35 U.S.C. 103 of Claims 9-12, 15, and 18-21 as being unpatentable over Rhodes et al, Ye et al, Huang et al, Liu et al, and Pangrle et al is requested in accordance with the remarks above.

Allowance of all Claims is requested.

It is requested that should Examiner Maldonado not find that the Claims are now Allowable that the Examiner call the undersigned at 765 4530866 to overcome any problems preventing allowance.

Respectfully submitted,



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